

ARIZONA STATE TRAUMA REGISTRY

Standard Public Report - 2005 Trauma Data - Version 3.1

Important information about 2005 Arizona State Trauma Registry (ASTR) data:

Ten hospitals contributed 2005 trauma data to the Arizona State Trauma Registry (ASTR). Seven of the reporting facilities were designated as Level I Trauma Centers at the time of data submission in 2006. The remaining three facilities were non-designated. Two of the non-designated facilities submitted only partial data for 2005.

ASTR receives data from a limited number of hospitals in Arizona. The records in this report are not representative of all Arizona trauma cases statewide. During the Phase I and Phase II Data Standardization Project, the State required data elements from hospital registries were converted to a standardized format. In 2005, not all reporting facilities were collecting every data element in this report. The quality of the data has not been assessed and there are data entry errors known to be present.

This report reflects trauma data as it exists in the ASTR database on 4/1/07. **There were 22264 records submitted to ASTR with ED Arrival Dates from 1/1/05 to 12/31/05.**

Version 3.0 of the 2005 Standard Public Report reflected changes in report numbers due to submission updates and recent corrections to the ASTR system. Version 3.1 reflects a correction to page 23 indicating that 32 patients were not included in that specific report.

Report Definitions:

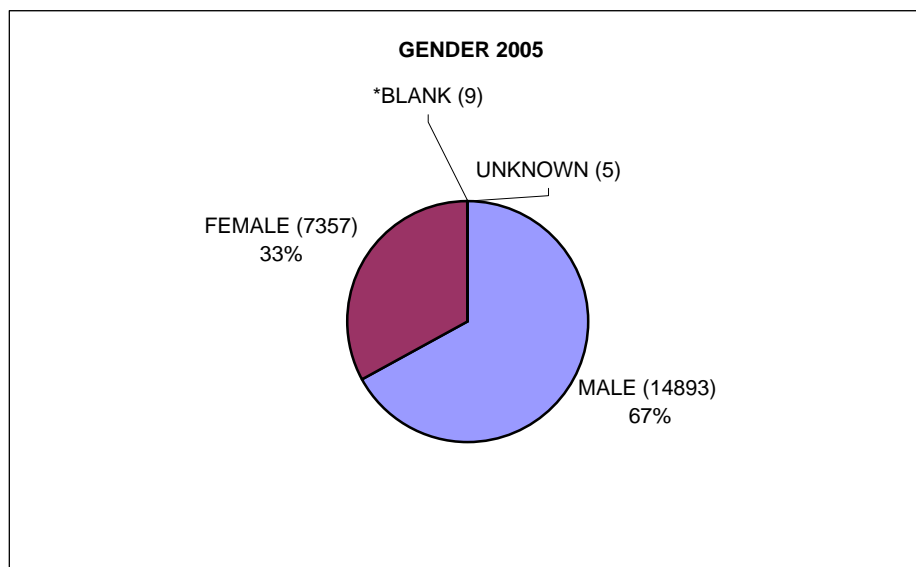
*BLANK or *BL in this report means that a value was not submitted by the facility for that specific data element.

*NOT DOCUMENTED or *N/D means that the registrar entered a Not Documented response for that specific data element. The ASTR Data Dictionary (revised June 2006) defines Not Documented as "no documentation in record, unknown."

*NOT APPLICABLE or *N/A in this report means that the registrar entered a Not Applicable response for that specific data element. In the ASTR Data Dictionary (revised June 2006), Not Applicable is allowed in instances where the data element does not apply to the specific circumstances of the trauma case. For example, the date of the EMS run sheet does not apply if the patient was transported to the hospital by a relative.

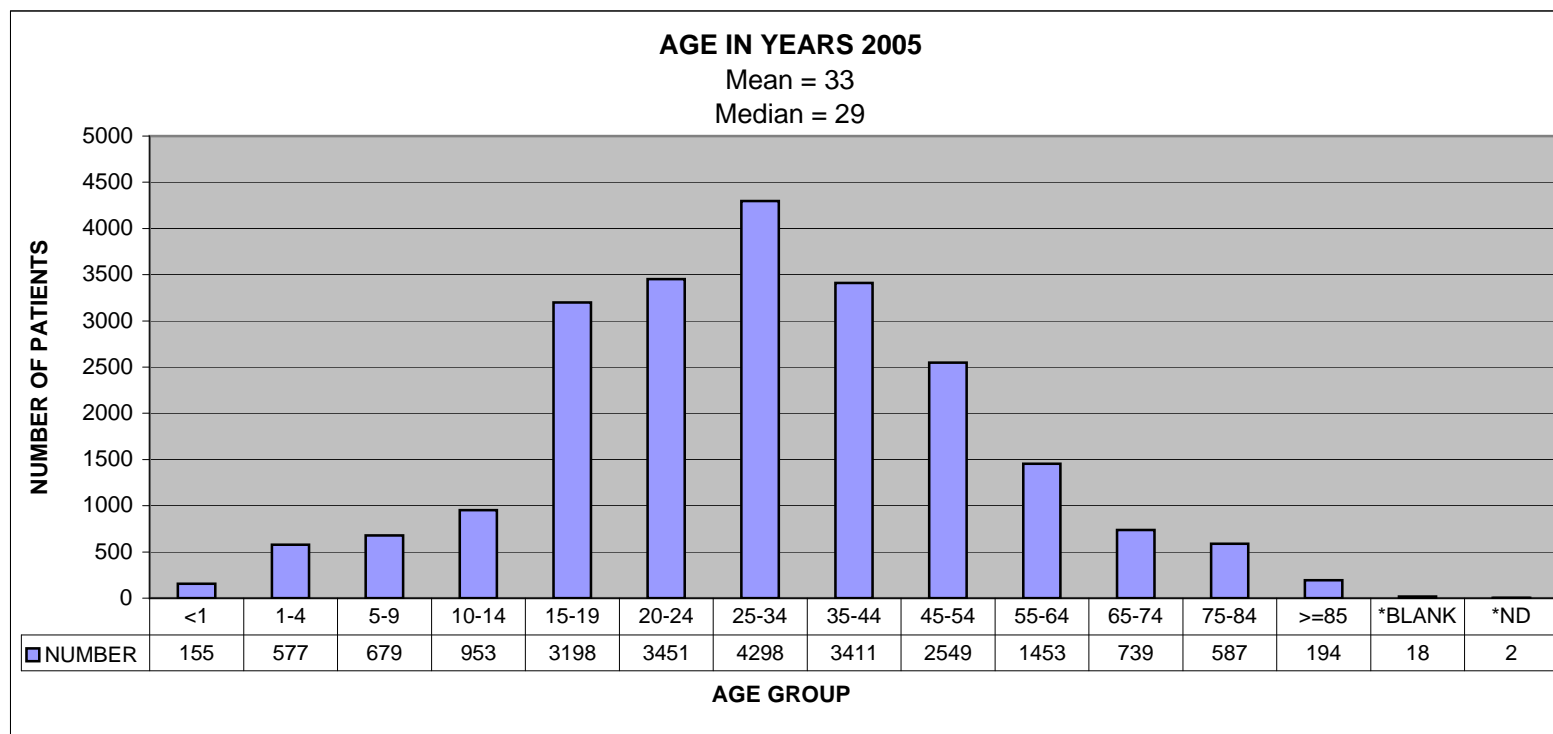
For questions regarding this report, please contact Anita Ray with the Arizona Department of Health Services at 602-542-1245, email: raya@azdhs.gov.

GENDER 2005



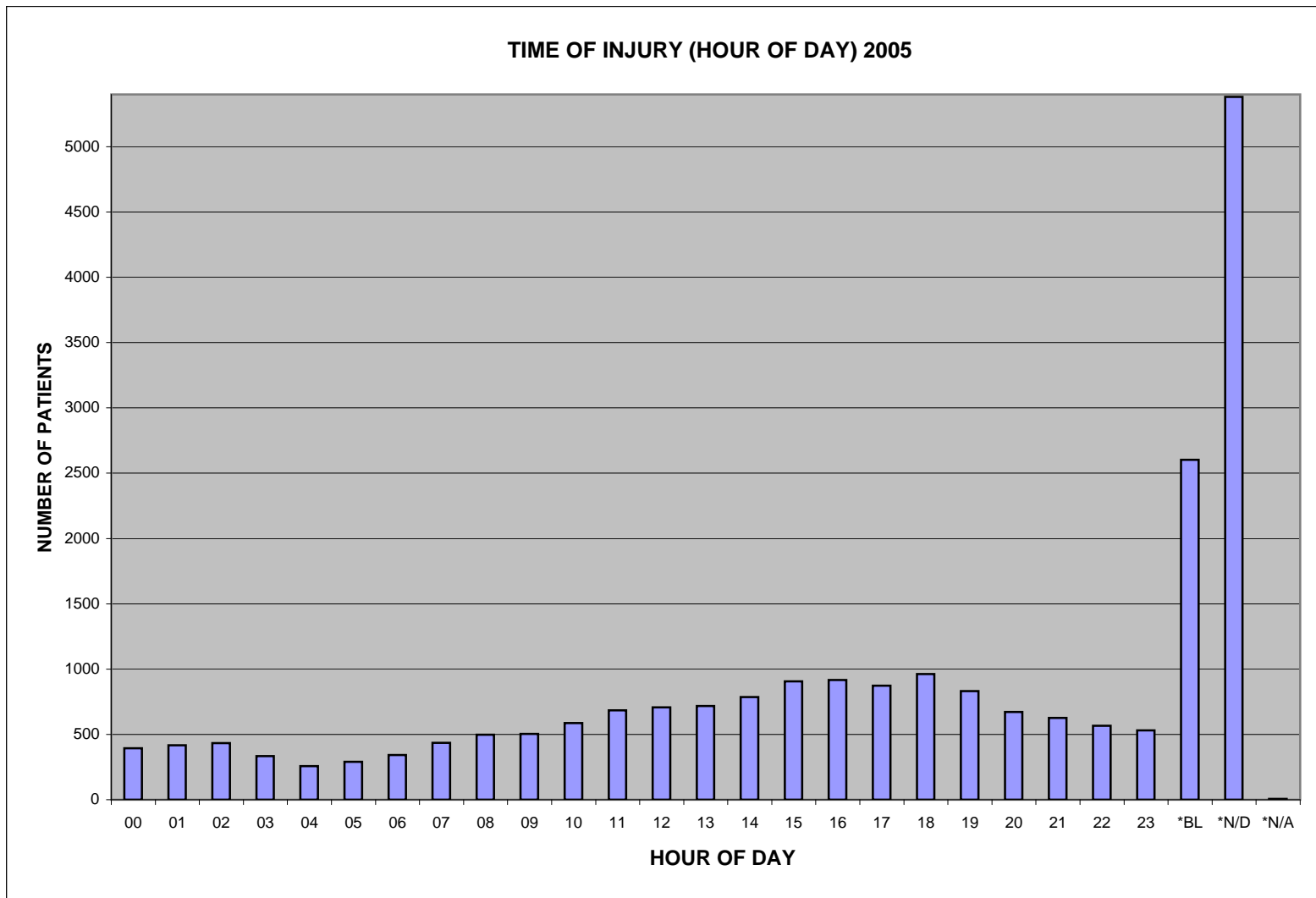
GENDER	NUMBER	PERCENTAGE
MALE	14893	66.89
FEMALE	7357	33.04
UNKNOWN	5	0.02
*BLANK	9	0.04
TOTAL	22264	100.00

AGE IN YEARS 2005



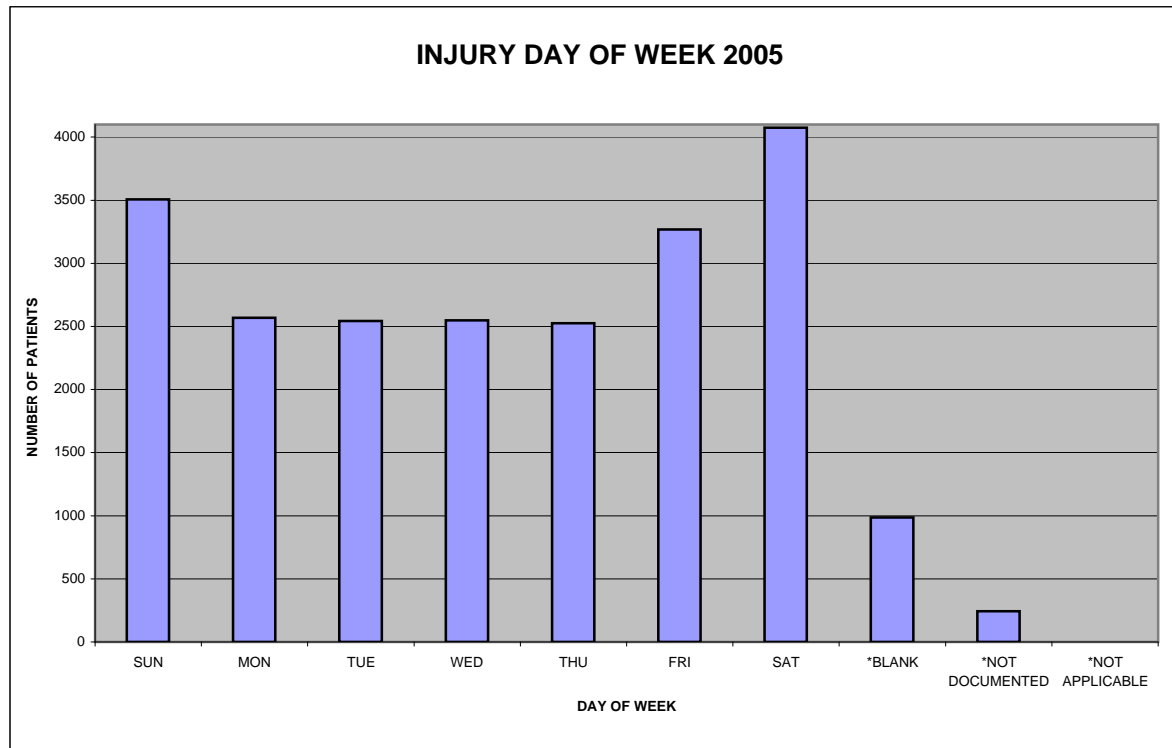
AGE	NUMBER	PERCENT
<1	155	0.70
1-4	577	2.59
5-9	679	3.05
10-14	953	4.28
15-19	3198	14.36
20-24	3451	15.50
25-34	4298	19.30
35-44	3411	15.32
45-54	2549	11.45
55-64	1453	6.53
65-74	739	3.32
75-84	587	2.64
>=85	194	0.87
*BLANK	18	0.08
*ND	2	0.01
TOTAL	22264	100.00

INJURY TIME OF DAY 2005



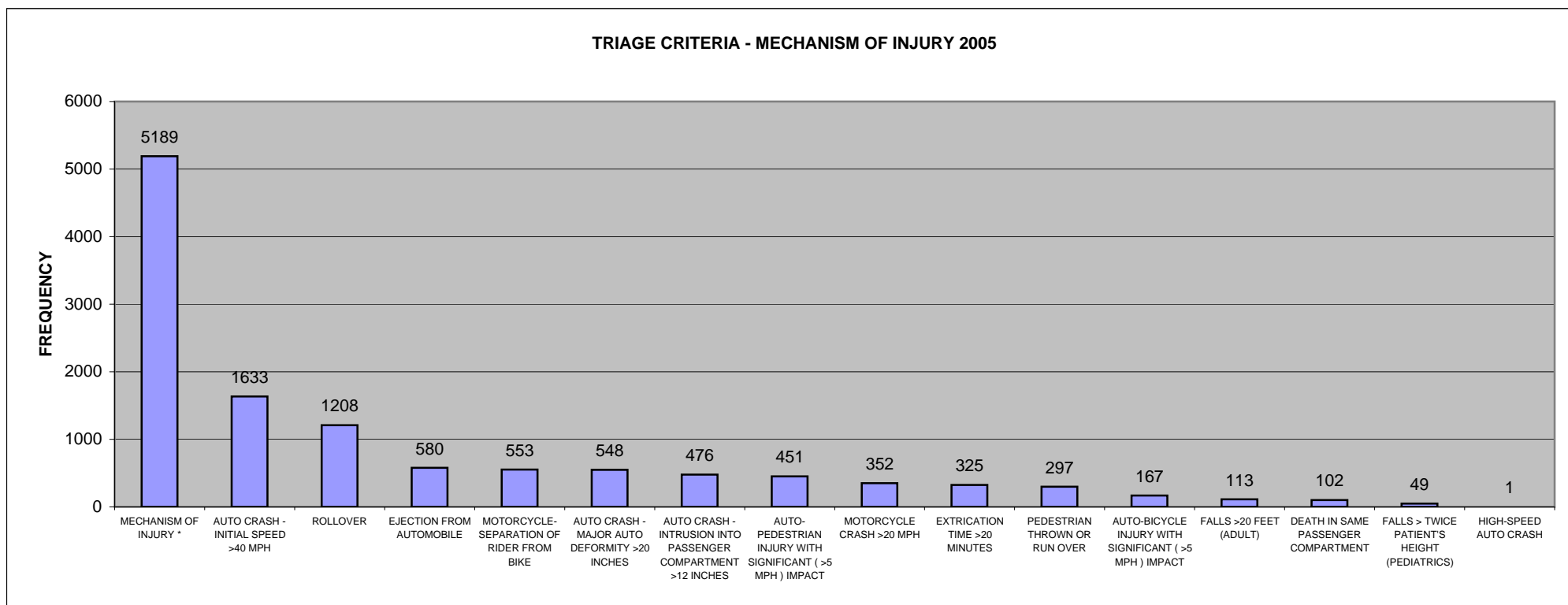
TIME OF INJURY - HOUR OF DAY	NUMBER	PERCENT
00	395	1.77
01	416	1.87
02	434	1.95
03	334	1.50
04	257	1.15
05	291	1.31
06	342	1.54
07	435	1.95
08	497	2.23
09	503	2.26
10	586	2.63
11	685	3.08
12	707	3.18
13	718	3.22
14	785	3.53
15	907	4.07
16	917	4.12
17	874	3.93
18	963	4.33
19	832	3.74
20	672	3.02
21	627	2.82
22	567	2.55
23	530	2.38
*BL	2603	11.69
*N/D	5381	24.17
*N/A	6	0.03
TOTAL	22264	100.00

INJURY DAY OF WEEK 2005



INJURY DATE - DAY OF WEEK	NUMBER	PERCENTAGE
SUN	3506	15.75
MON	2568	11.53
TUE	2543	11.42
WED	2547	11.44
THU	2526	11.35
FRI	3268	14.68
SAT	4074	18.30
*BLANK	987	4.43
*NOT DOCUMENTED	244	1.10
*NOT APPLICABLE	1	0.00
TOTAL	22264	100.00

TRIAGE CRITERIA - MECHANISM OF INJURY 2005

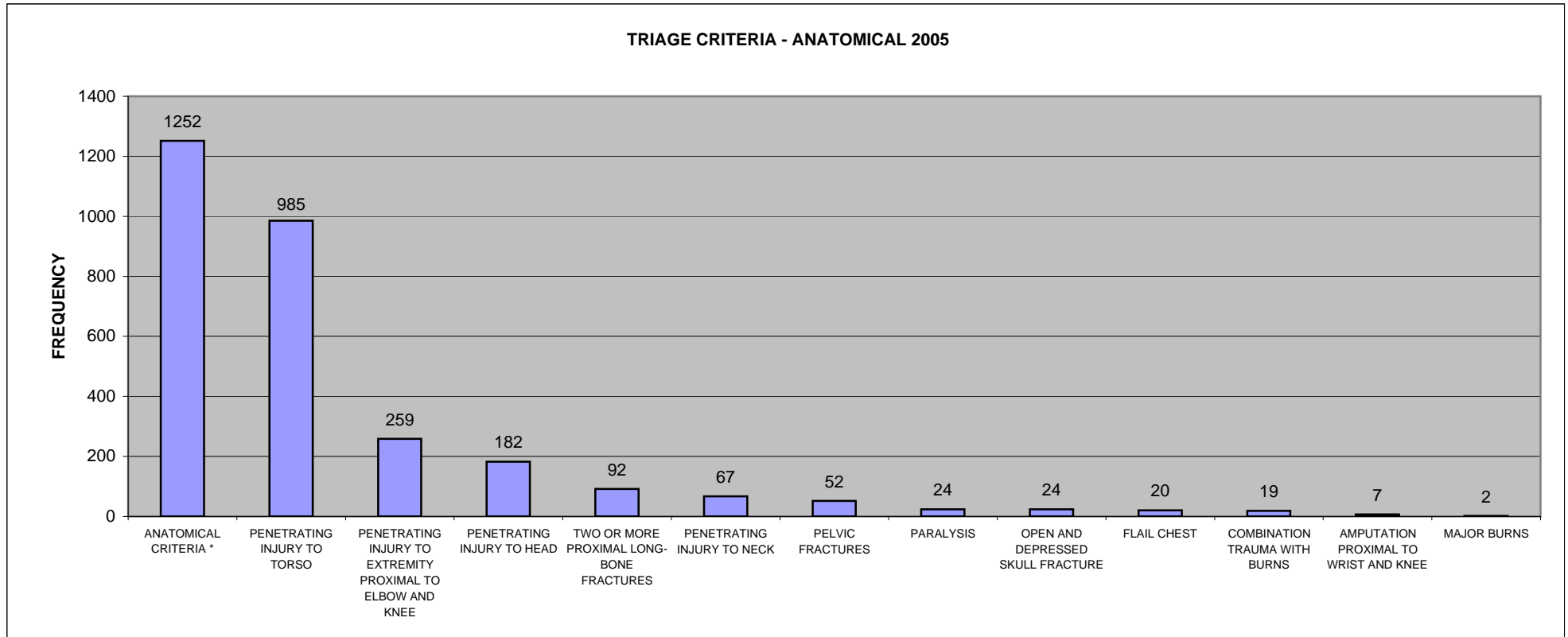


TRIAGE CRITERIA	FREQUENCY
MECHANISM OF INJURY *	5189
AUTO CRASH - INITIAL SPEED >40 MPH	1633
ROLLOVER	1208
EJECTION FROM AUTOMOBILE	580
MOTORCYCLE-SEPARATION OF RIDER FROM BIKE	553
AUTO CRASH - MAJOR AUTO DEFORMITY >20 INCHES	548
AUTO CRASH - INTRUSION INTO PASSENGER COMPARTMENT >12 INCHES	476
AUTO-PEDESTRIAN INJURY WITH SIGNIFICANT (>5 MPH) IMPACT	451
MOTORCYCLE CRASH >20 MPH	352
EXTRICATION TIME >20 MINUTES	325
PEDESTRIAN THROWN OR RUN OVER	297
AUTO-BICYCLE INJURY WITH SIGNIFICANT (>5 MPH) IMPACT	167
FALLS >20 FEET (ADULT)	113
DEATH IN SAME PASSENGER COMPARTMENT	102
FALLS > TWICE PATIENT'S HEIGHT (PEDIATRICS)	49
HIGH-SPEED AUTO CRASH	1
TOTAL	12044

Note: Total number of Triage Criteria = 27331
The Triage Criteria field allows for multiple entries of triage criteria for each patient.

*Prior to data conversion some hospitals only had the ability to select the five major categories (i.e. mechanism of injury, anatomical, physiological, co-morbidity, and other). In this figure and table, the Mechanism of Injury is the highest frequency. The frequency of this category is not a total of the more specific criteria.

TRIAGE CRITERIA - ANATOMICAL 2005

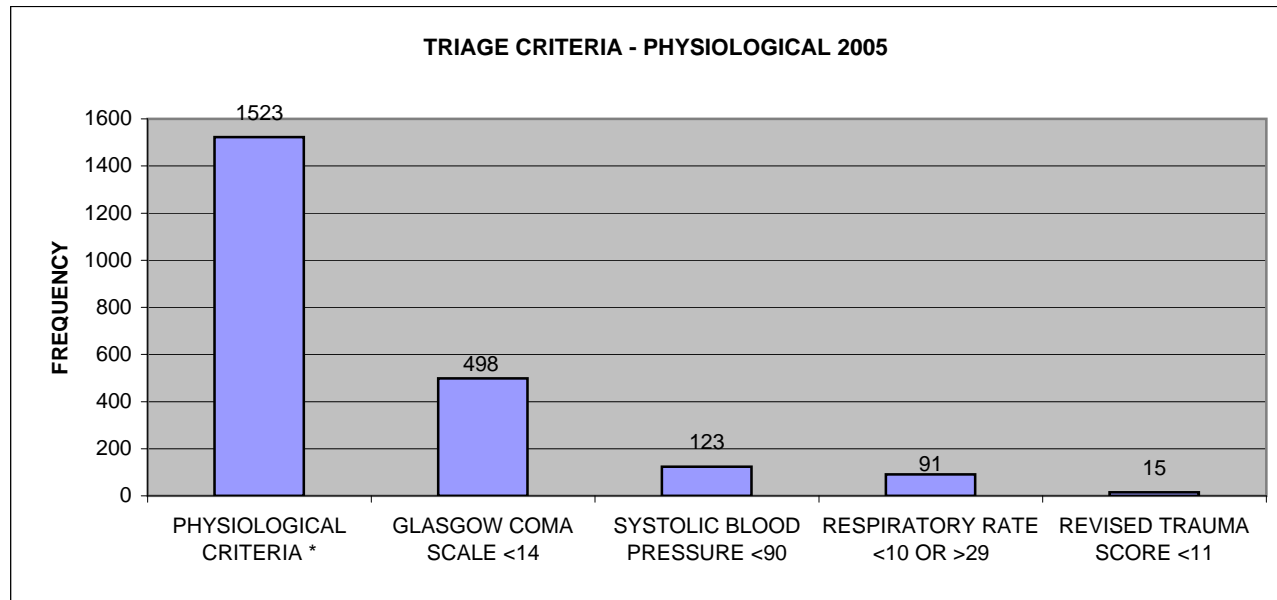


TRIAGE CRITERIA	FREQUENCY
ANATOMICAL CRITERIA *	1252
PENETRATING INJURY TO TORSO	985
PENETRATING INJURY TO EXTREMITY PROXIMAL TO ELBOW AND KNEE	259
PENETRATING INJURY TO HEAD	182
TWO OR MORE PROXIMAL LONG-BONE FRACTURES	92
PENETRATING INJURY TO NECK	67
PELVIC FRACTURES	52
PARALYSIS	24
OPEN AND DEPRESSED SKULL FRACTURE	24
FLAIL CHEST	20
COMBINATION TRAUMA WITH BURNS	19
AMPUTATION PROXIMAL TO WRIST AND KNEE	7
MAJOR BURNS	2
TOTAL	2985

Note: Total number of Triage Criteria = 27331
The Triage Criteria field allows for multiple entries of triage criteria for each patient.

*Prior to data conversion some hospitals only had the ability to select the five major categories (i.e. mechanism of injury, anatomical, physiological, co-morbidity, and other). In this figure and table, the Anatomical Criteria is the highest frequency. The frequency of this category is not a total of the more specific criteria.

TRIAGE CRITERIA - PHYSIOLOGICAL 2005

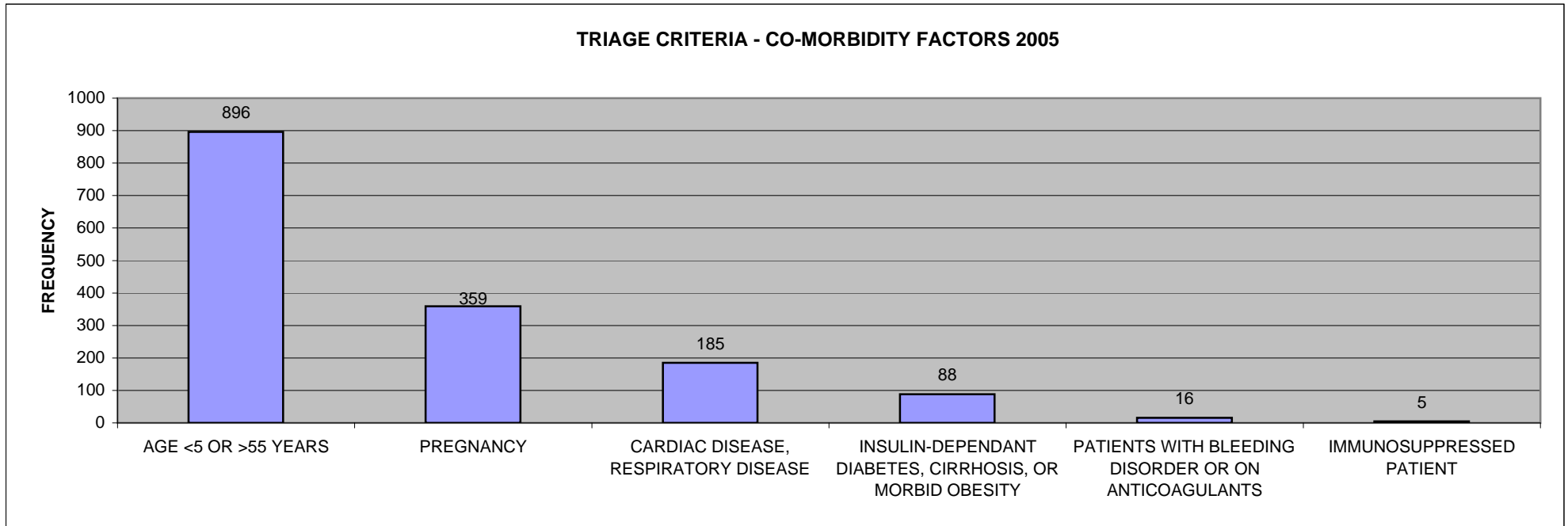


TRIAGE CRITERIA	FREQUENCY
PHYSIOLOGICAL CRITERIA *	1523
GLASGOW COMA SCALE <14	498
SYSTOLIC BLOOD PRESSURE <90	123
RESPIRATORY RATE <10 OR >29	91
REVISED TRAUMA SCORE <11	15
TOTAL	2250

Note: Total number of Triage Criteria = 27331
The Triage Criteria field allows for multiple entries of triage criteria for each patient.

*Prior to data conversion some hospitals only had the ability to select the five major categories (i.e. mechanism of injury, anatomical, physiological, co-morbidity, and other). In this figure and table, the Physiological Criteria is the highest frequency. The frequency of this category is not a total of the more specific criteria.

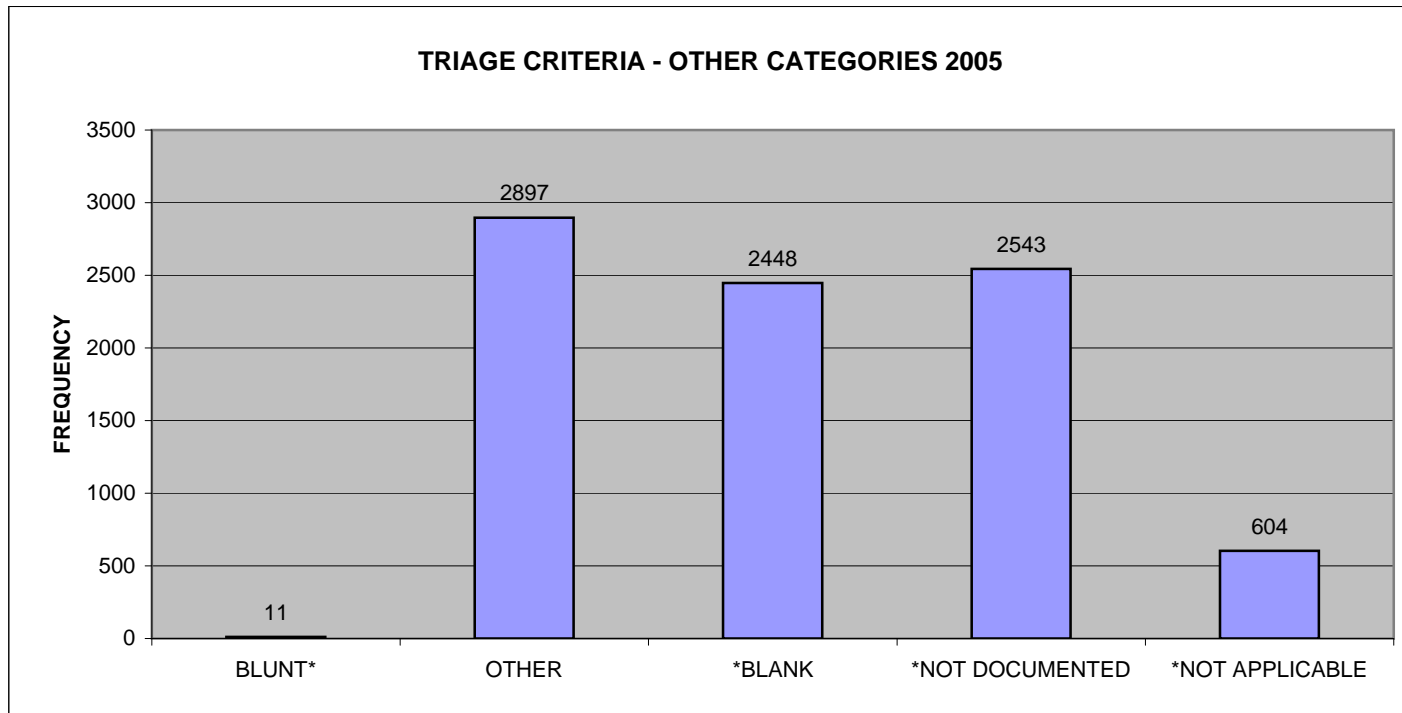
TRIAGE CRITERIA - CO-MORBIDITY FACTORS 2005



TRIAGE CRITERIA	FREQUENCY
AGE <5 OR >55 YEARS	896
PREGNANCY	359
CARDIAC DISEASE, RESPIRATORY DISEASE	185
INSULIN-DEPENDANT DIABETES, CIRRHOSIS, OR MORBID OBESITY	88
PATIENTS WITH BLEEDING DISORDER OR ON ANTICOAGULANTS	16
IMMUNOSUPPRESSED PATIENT	5
TOTAL	1549

Note: Total number of Triage Criteria = 27331
The Triage Criteria field allows for multiple entries of triage criteria for each patient.

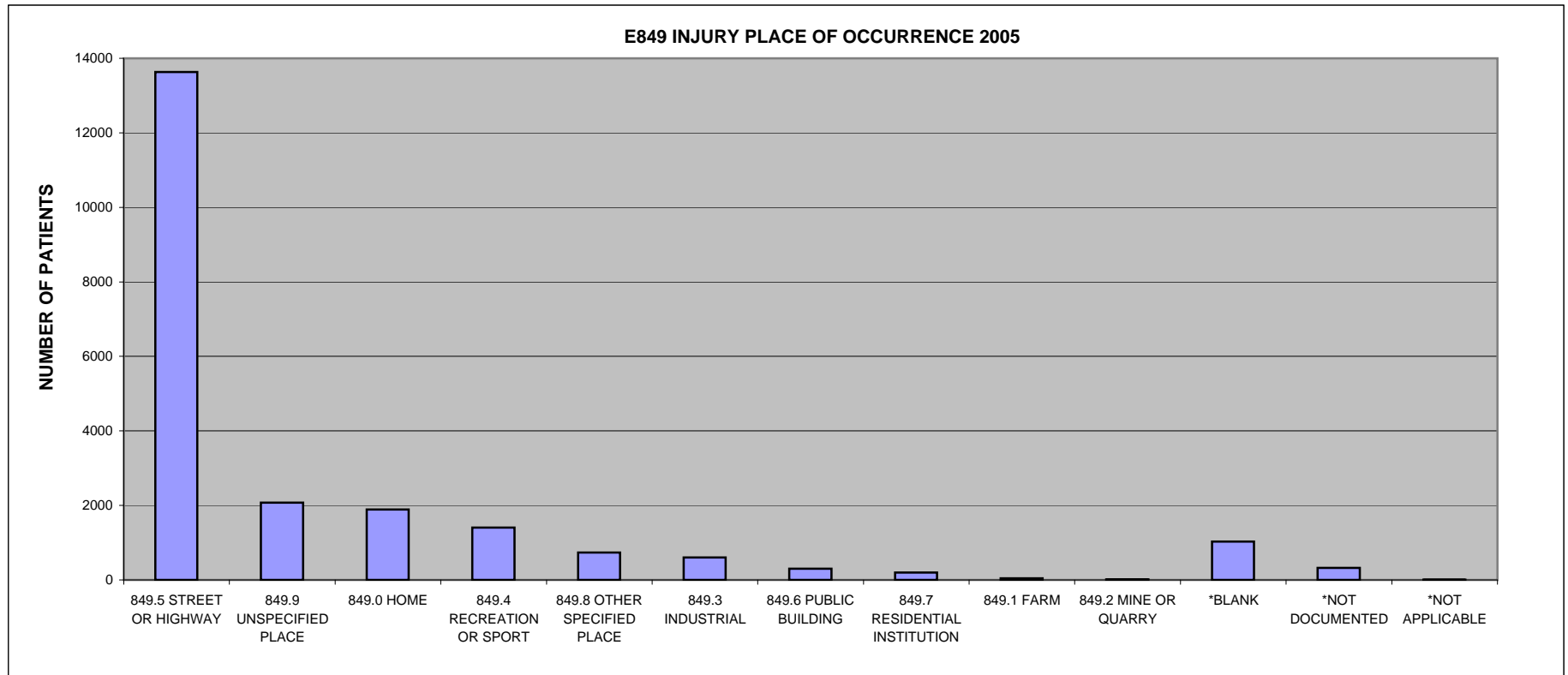
TRIAGE CRITERIA - OTHER CATEGORIES 2005



TRIAGE CRITERIA	FREQUENCY
BLUNT*	11
OTHER	2897
*BLANK	2448
*NOT DOCUMENTED	2543
*NOT APPLICABLE	604
TOTAL	8503

Note: Total number of Triage Criteria = 27331
The Triage Criteria field allows for multiple entries of triage criteria for each patient. BLUNT* is not a standard picklist option and represents an invalid entry.

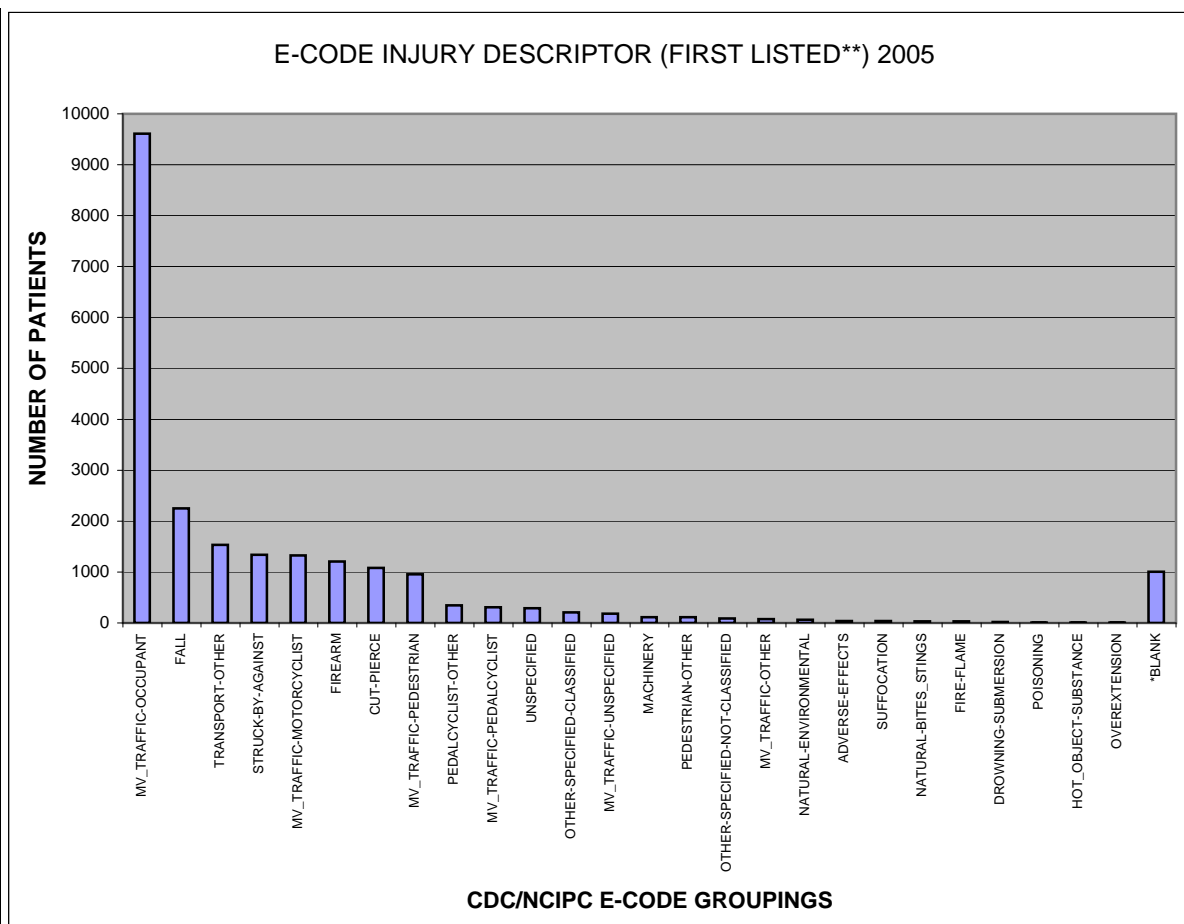
INJURY PLACE OF OCCURRENCE 2005



E849 INJURY PLACE OF OCCURRENCE	NUMBER	PERCENTAGE
849.5 STREET OR HIGHWAY	13633	61.23
849.9 UNSPECIFIED PLACE	2072	9.31
849.0 HOME	1894	8.51
849.4 RECREATION OR SPORT	1408	6.32
849.8 OTHER SPECIFIED PLACE	739	3.32
849.3 INDUSTRIAL	601	2.70
849.6 PUBLIC BUILDING	299	1.34
849.7 RESIDENTIAL INSTITUTION	201	0.90
849.1 FARM	42	0.19
849.2 MINE OR QUARRY	16	0.07
*BLANK	1031	4.63
*NOT DOCUMENTED	321	1.44
*NOT APPLICABLE	7	0.03
TOTAL	22264	100.00

ICD-9-CM PRIMARY E-CODE INJURY DESCRIPTOR 2005

CDC/NCIPC E-CODE MECHANISM GROUPINGS *	NUMBER
MV_TRAFFIC-OCCUPANT	9613
FALL	2249
TRANSPORT-OTHER	1536
STRUCK-BY-AGAINST	1337
MV_TRAFFIC-MOTORCYCLIST	1329
FIREARM	1209
CUT-PIERCE	1079
MV_TRAFFIC-PEDESTRIAN	958
PEDALCYCLIST-OTHER	343
MV_TRAFFIC-PEDALCYCLIST	310
UNSPECIFIED	288
OTHER-SPECIFIED-CLASSIFIED	208
MV_TRAFFIC-UNSPECIFIED	180
MACHINERY	110
PEDESTRIAN-OTHER	110
OTHER-SPECIFIED-NOT-CLASSIFIED	91
MV_TRAFFIC-OTHER	76
NATURAL-ENVIRONMENTAL	61
ADVERSE-EFFECTS	39
SUFFOCATION	38
NATURAL-BITES_STINGS	31
FIRE-FLAME	29
DROWNING-SUBMERSION	16
POISONING	8
HOT_OBJECT-SUBSTANCE	6
OVEREXTENSION	5
*BLANK	1005
TOTAL	22264



*Groupings based on the CDC/National Center for Injury Prevention and Control's *Recommended framework of E-code groupings for presenting injury mortality and morbidity data (February 16, 2005)*, <http://www.cdc.gov/ncipc/whatsnew/matrix2.htm>.

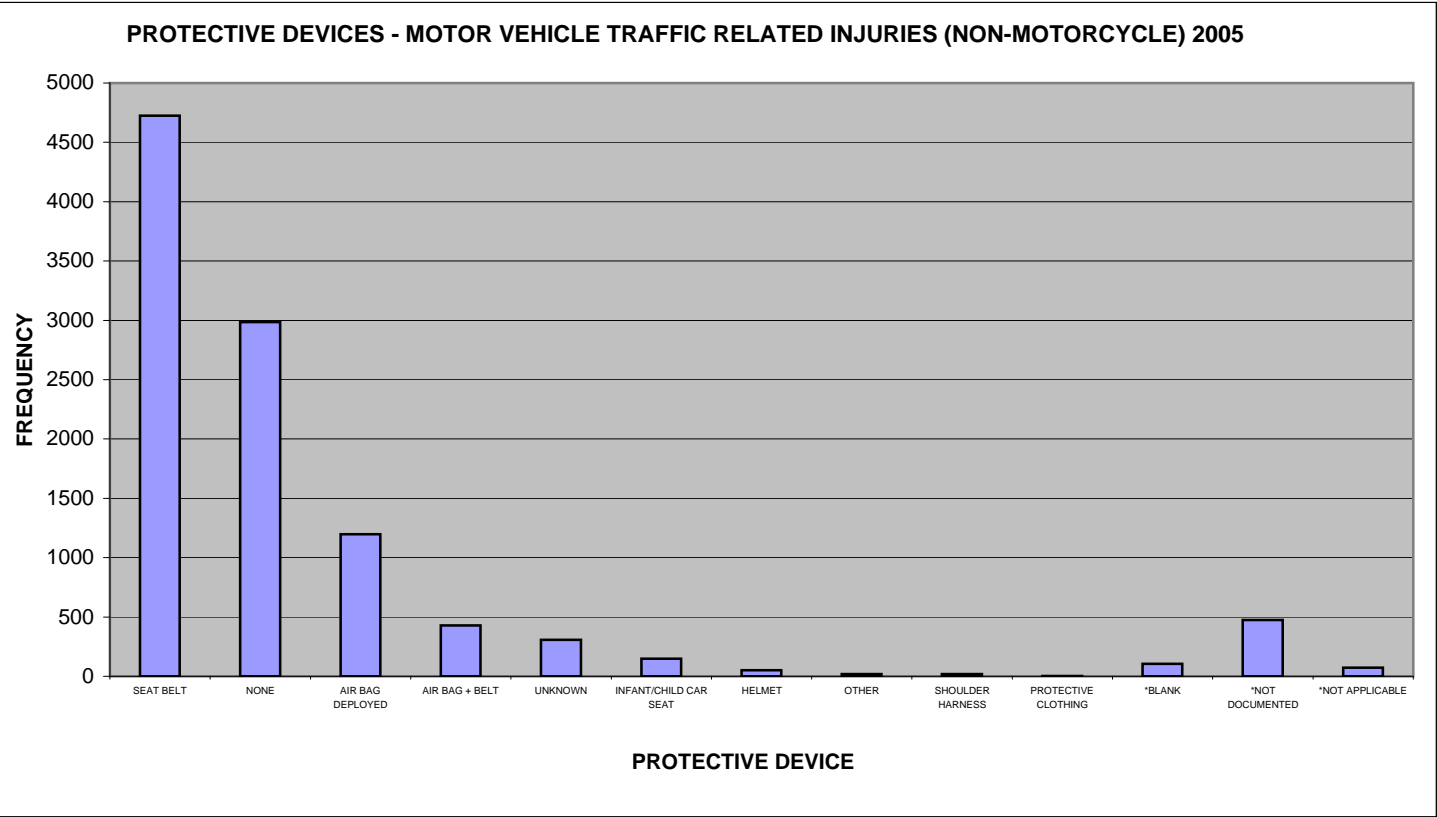
**NOTE: This report is based on the first E-code entered. ASTR requires only the primary E-code and registrars are instructed to enter the primary external cause of injury first.

ICD9-CM INJURY DIAGNOSIS 2005

ICD-9-CM INJURY DIAGNOSIS CATEGORY	Frequency
910-919 SUPERFICIAL INJURY	6906
920-924 CONTUSION WITH INTACT SKIN SURFACE	6563
870-879 OPEN WOUND OF HEAD, NECK, AND TRUNK	5585
805-809 FRACTURE OF NECK AND TRUNK	5110
850-854 INTRACRANIAL INJURY, EXCLUDING THOSE WITH SKULL FRACTURES	4767
800-804 FRACTURE OF SKULL	3924
860-869 INTERNAL INJURY OF CHEST, ABDOMEN, AND PELVIS	3618
810-819 FRACTURE OF UPPER LIMB	2697
820-829 FRACTURE OF LOWER LIMB	2575
840-848 SPRAINS AND STRAINS OF JOINTS AND ADJACENT MUSCLES	1824
880-887 OPEN WOUND OF UPPER LIMB	1411
890-897 OPEN WOUND OF LOWER LIMB	831
830-839 DISLOCATION	627
900-904 INJURY TO BLOOD VESSELS	406
958-959 CERTAIN TRAUMATIC COMPLICATIONS AND UNSPECIFIED INJURIES	366
950-957 INJURY TO NERVES AND SPINAL CORD	243
940-949 BURNS	219
925-929 CRUSHING INJURY	71
990-995 OTHER AND UNSPECIFIED EFFECTS OF EXTERNAL CAUSES	38
996-999 COMPLICATIONS OF SURGICAL AND MEDICAL CARE, NOT ELSEWHERE CLASSIFIED	27
960-979 POISONING BY DRUGS, MEDICINAL, AND BIOLOGICAL SUBSTANCES	6
930-939 EFFECTS OF FOREIGN BODY ENTERING THROUGH ORIFICE	4
905-909 LATE EFFECTS OF INJURIES, POISONINGS, TOXIC EFFECTS, AND OTHER EXTERNAL CAUSES	4
980-989 TOXIC EFFECTS OF SUBSTANCES CHIEFLY NON-MEDICINAL AS TO SOURCE	2
*BLANK	7791
*NOT DOCUMENTED	3964
Total **	59579

**** Note:** The ICD9-CM diagnosis field allows for entry of multiple diagnoses per patient. The total in this report is based on the occurrence of the ICD-9-CM diagnosis and is not a total patient count. Report updated to include only the final diagnosis fields from hospital systems.

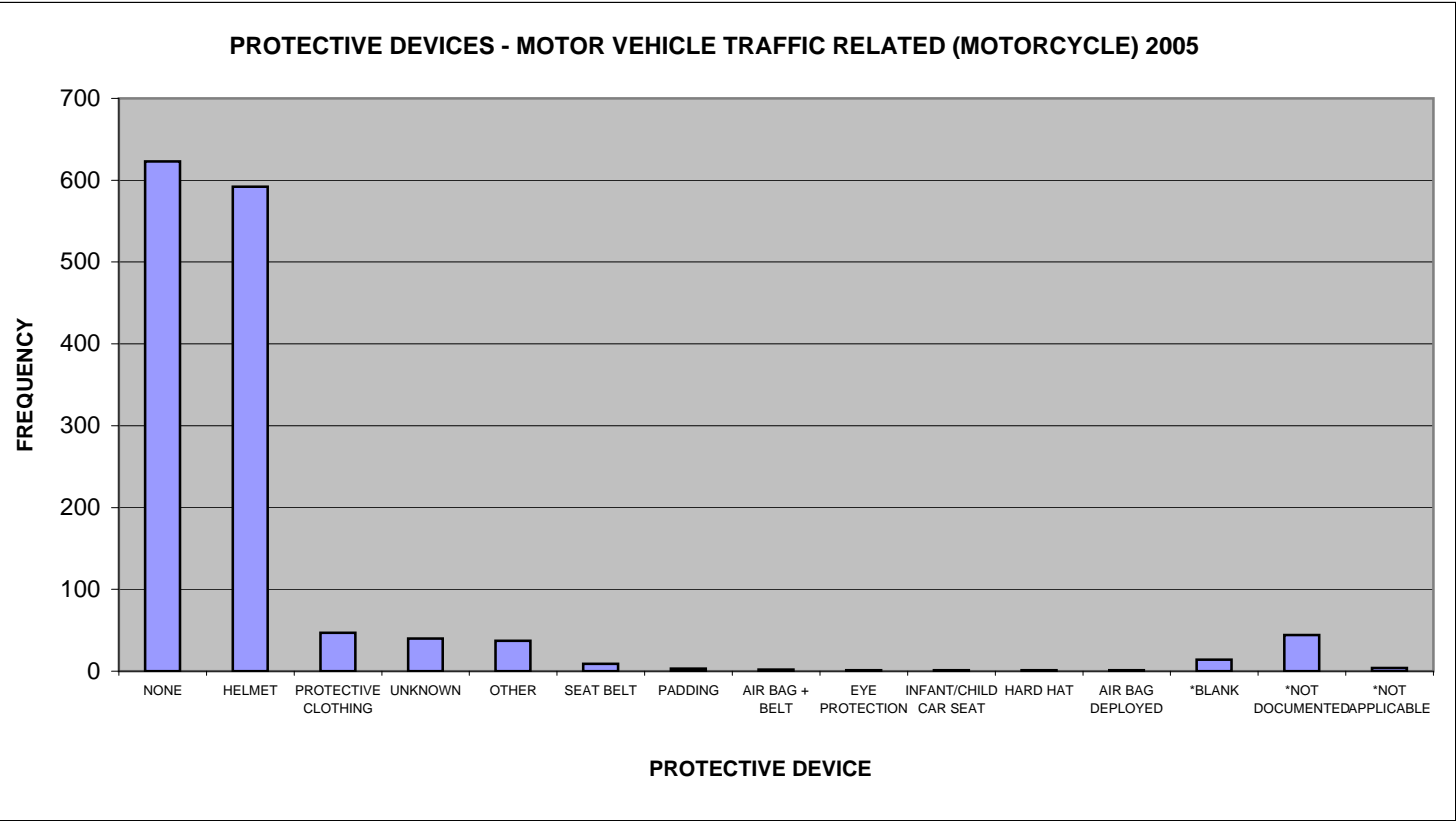
PROTECTIVE DEVICES USED IN UNINTENTIONAL MOTOR VEHICLE TRAFFIC RELATED INJURIES -MOTOR VEHICLE OTHER THAN MOTORCYCLE- 2005



PROTECTIVE DEVICE	FREQUENCY
SEAT BELT	4726
NONE	2985
AIR BAG DEPLOYED	1197
AIR BAG + BELT	428
UNKNOWN	308
INFANT/CHILD CAR SEAT	148
HELMET	52
OTHER	19
SHOULDER HARNESS	18
PROTECTIVE CLOTHING	4
*BLANK	105
*NOT DOCUMENTED	474
*NOT APPLICABLE	72
TOTAL	10536

Note: Unintentional motor vehicle traffic related injuries -motor vehicle occupant other than motorcycle- are classified by E-codes E810-E819 (.0 & .1).
Field allows for multiple entry of protective devices.

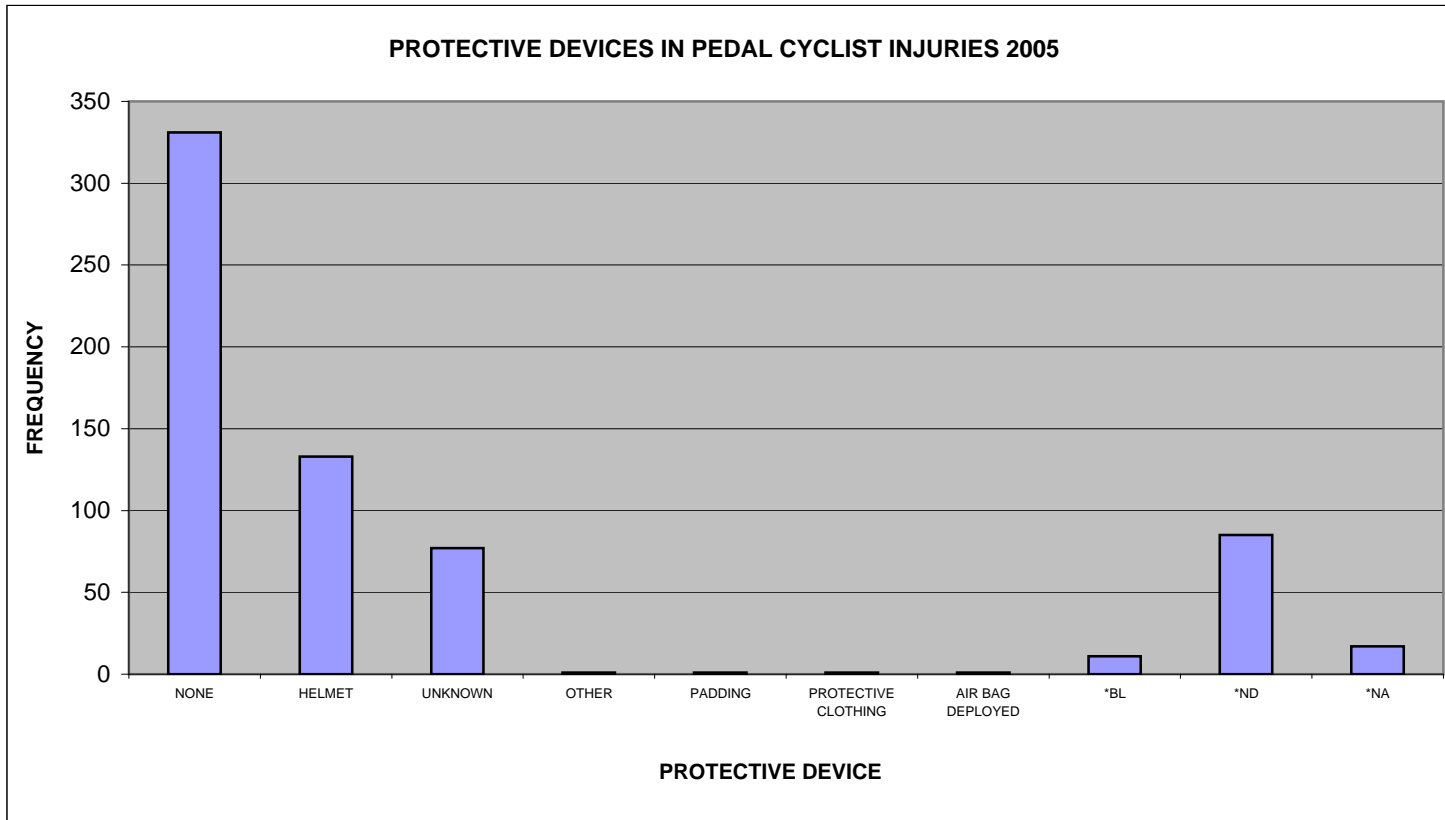
PROTECTIVE DEVICES USED IN UNINTENTIONAL MOTOR VEHICLE TRAFFIC RELATED INJURIES - MOTORCYCLE DRIVER OR PASSENGER- 2005



PROTECTIVE DEVICE	FREQUENCY
NONE	623
HELMET	592
PROTECTIVE CLOTHING	47
UNKNOWN	40
OTHER	37
SEAT BELT	9
PADDING	3
AIR BAG + BELT	2
EYE PROTECTION	1
INFANT/CHILD CAR SEAT	1
HARD HAT	1
AIR BAG DEPLOYED	1
*BLANK	14
*NOT DOCUMENTED	44
*NOT APPLICABLE	4
TOTAL	1419

Note: Unintentional motor vehicle traffic related injuries -motorcycle driver or motorcycle passenger- are classified by E-codes E810-E819 (.2 & .3).
Field allows for multiple entry of protective devices.

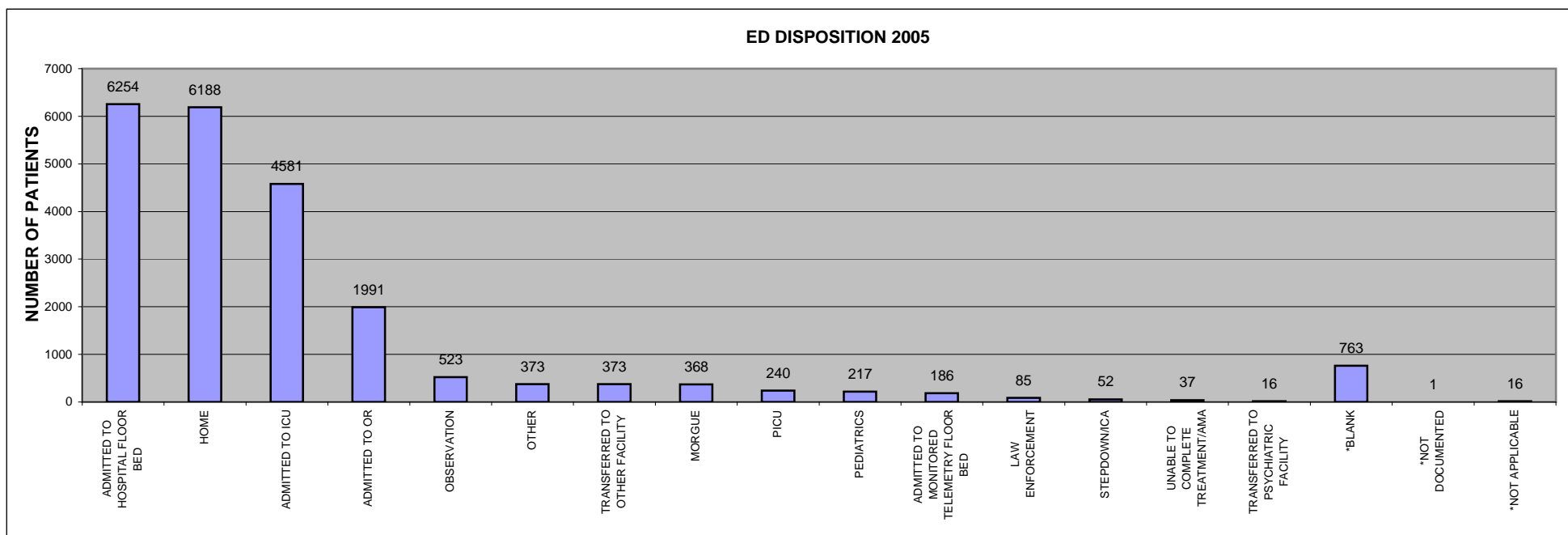
PROTECTIVE DEVICES USED IN PEDAL CYCLIST INJURIES 2005



PROTECTIVE DEVICE	FREQUENCY
NONE	331
HELMET	133
UNKNOWN	77
OTHER	1
PADDING	1
PROTECTIVE CLOTHING	1
AIR BAG DEPLOYED	1
*BL	11
*ND	85
*NA	17
TOTAL	658

Note: Pedal cyclist injuries are classified by CDC E-code groupings including: E810-E819(.6), E800-807(.3), E820-E825(.6), E826(.1, .9), E827-E829(.1).
Field allows for multiple entry of protective devices.

EMERGENCY DEPARTMENT DISPOSITION 2005



ED DISPOSITION	NUMBER	PERCENTAGE
ADMITTED TO HOSPITAL FLOOR BED	6254	28.09
HOME	6188	27.79
ADMITTED TO ICU	4581	20.58
ADMITTED TO OR	1991	8.94
OBSERVATION	523	2.35
OTHER	373	1.68
TRANSFERRED TO OTHER FACILITY	373	1.68
MORGUE	368	1.65
PICU	240	1.08
PEDIATRICS	217	0.97
ADMITTED TO MONITORED TELEMETRY FLOOR BED	186	0.84
LAW ENFORCEMENT	85	0.38
STEPDOWN/ICA	52	0.23
UNABLE TO COMPLETE TREATMENT/AMA	37	0.17
TRANSFERRED TO PSYCHIATRIC FACILITY	16	0.07
*BLANK	763	3.43
*NOT DOCUMENTED	1	0.00
*NOT APPLICABLE	16	0.07
TOTAL	22264	100

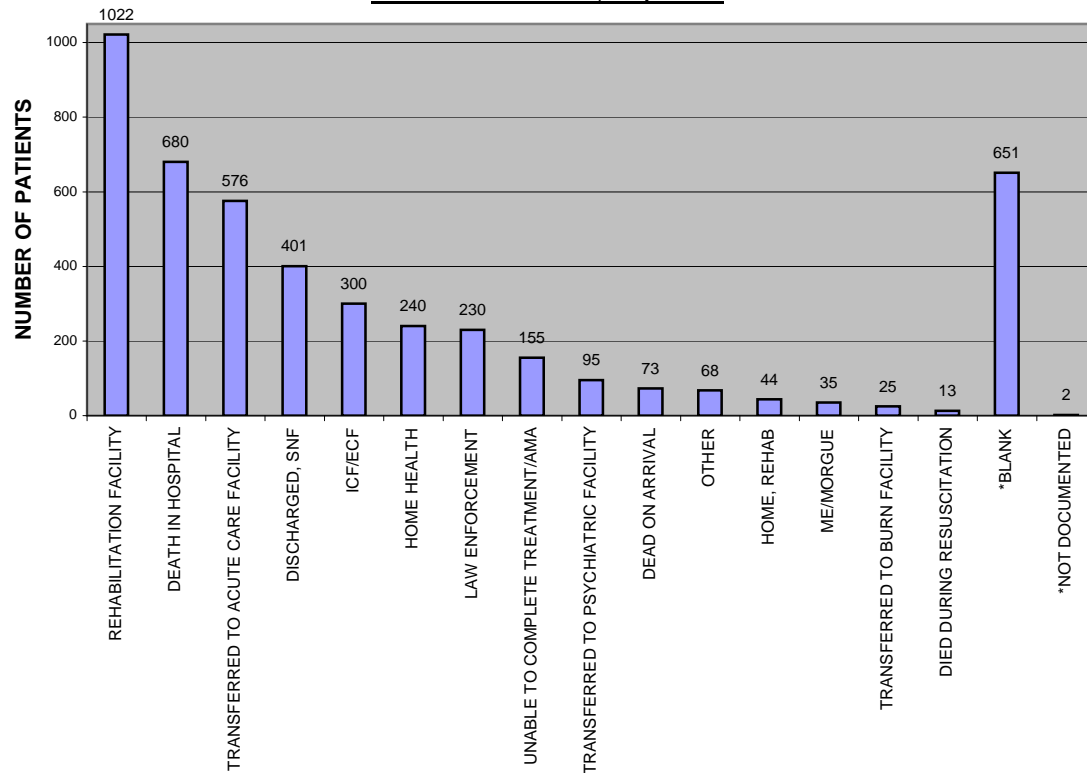
HOSPITAL DISCHARGE DISPOSITION 2005

HOSPITAL DISCHARGE DISPOSITION 2005

Dispositions not represented on chart below:

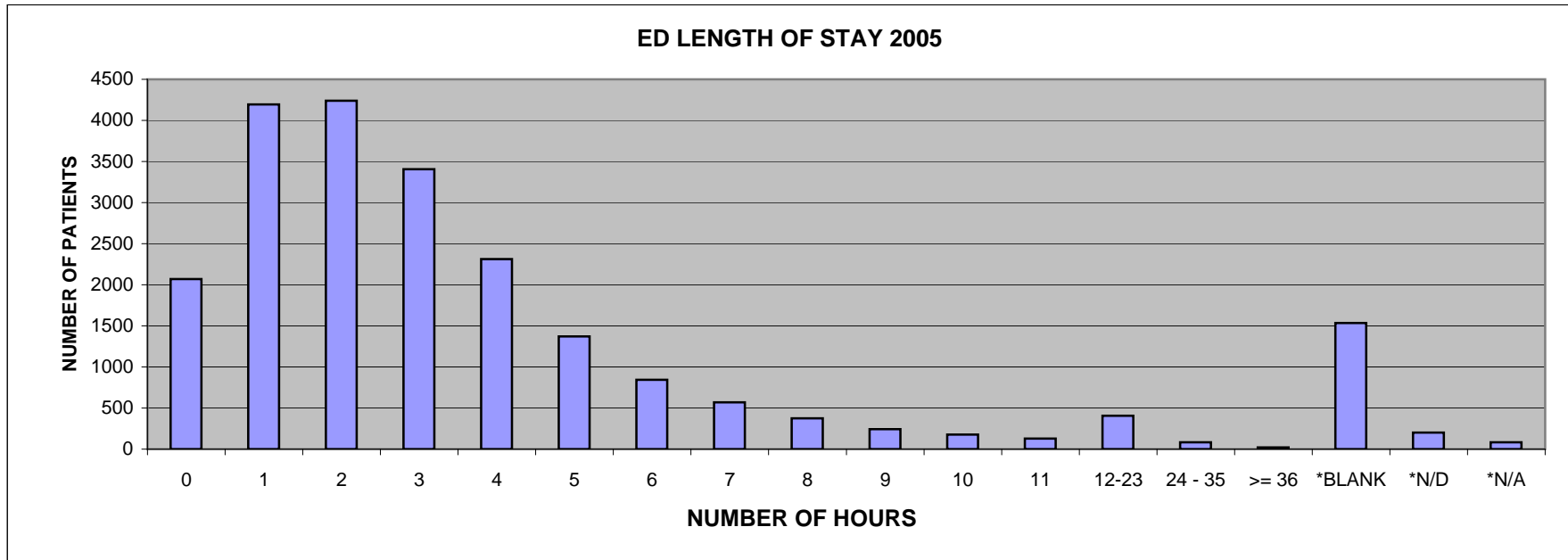
HOME, NO ASSISTANCE = 13,921 patients

NOT APPLICABLE = 3,733 patients



DISCHARGE DISPOSITION	NUMBER	PERCENT
HOME	13921	62.53
REHABILITATION FACILITY	1022	4.59
DEATH IN HOSPITAL	680	3.05
TRANSFERRED TO ACUTE CARE FACILITY	576	2.59
DISCHARGED, SNF	401	1.80
ICF/ECF	300	1.35
HOME HEALTH	240	1.08
LAW ENFORCEMENT	230	1.03
UNABLE TO COMPLETE TREATMENT/AMA	155	0.70
TRANSFERRED TO PSYCHIATRIC FACILITY	95	0.43
DEAD ON ARRIVAL	73	0.33
OTHER	68	0.31
HOME, REHAB	44	0.20
ME/MORGUE	35	0.16
TRANSFERRED TO BURN FACILITY	25	0.11
DIED DURING RESUSCITATION	13	0.06
*BLANK	651	2.92
*NOT DOCUMENTED	2	0.01
*NOT APPLICABLE	3733	16.77
TOTAL	22264	100.00

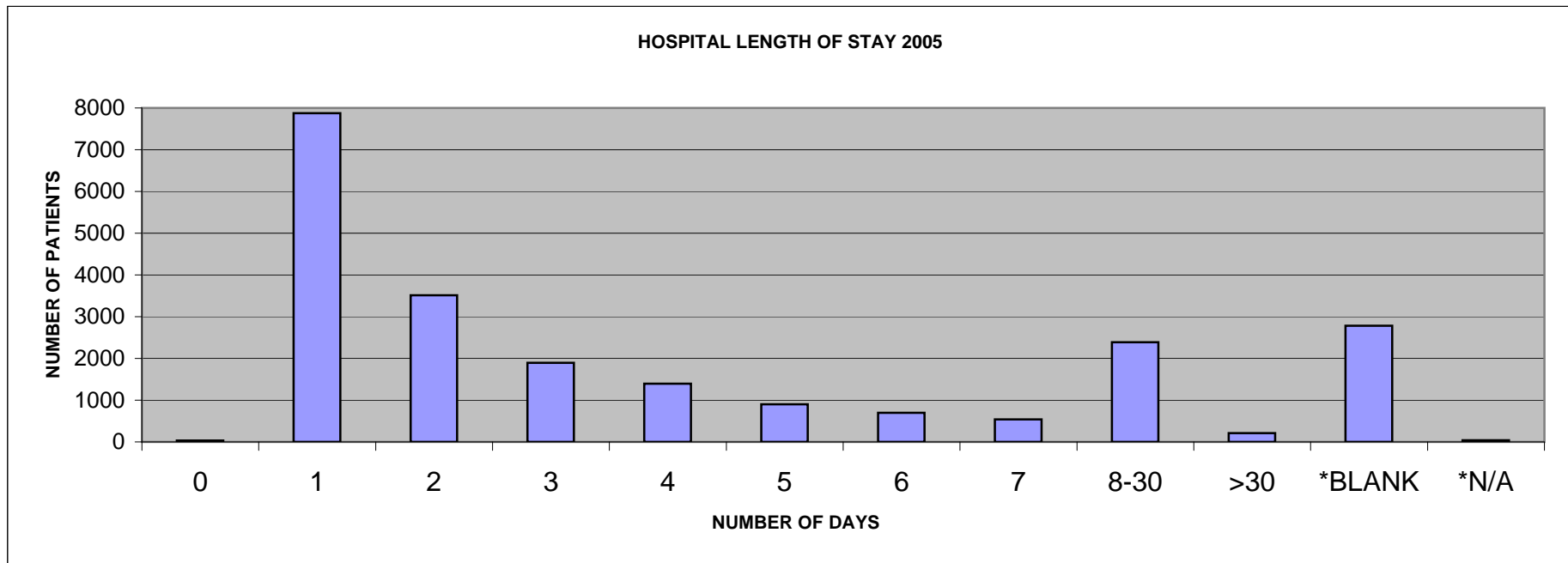
LENGTH OF STAY (HOURS) IN EMERGENCY DEPARTMENT 2005



LENGTH OF STAY (HOURS) IN ED	NUMBER	PERCENTAGE
0	2071	9.30
1	4195	18.85
2	4241	19.05
3	3405	15.30
4	2313	10.39
5	1371	6.16
6	845	3.80
7	568	2.55
8	374	1.68
9	243	1.09
10	177	0.80
11	128	0.58
12-23	407	1.83
24 - 35	82	0.37
>= 36	20	0.09
*BLANK	1533	6.89
*N/D	203	0.91
*N/A	82	0.37
TOTAL *	22258	100.00

*Note: Length of stay is calculated from ED Arrival to ED Exit. Data entry errors are present in this field. LOS values range from -22 to 8777 hours. Six negative values exist in the 2005 data and are not included in report numbers.

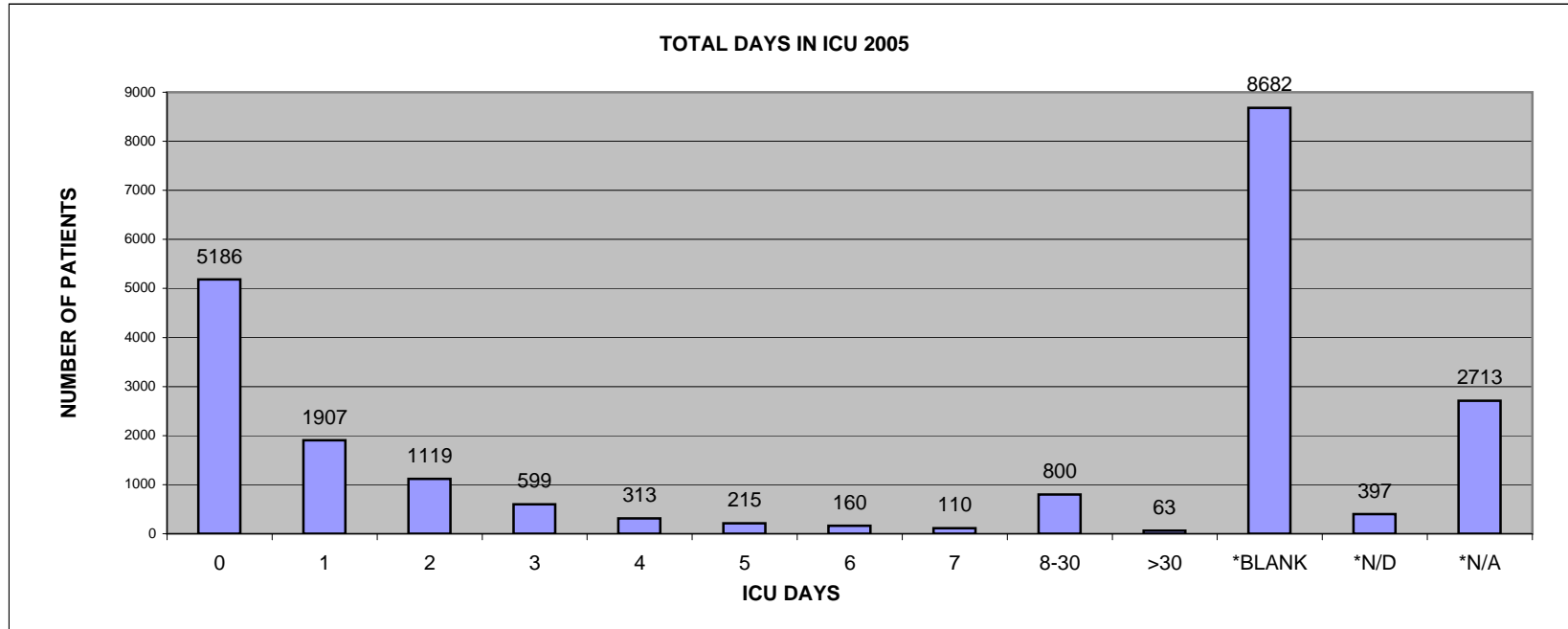
HOSPITAL LENGTH OF STAY (DAYS) 2005*



HOSPITAL LENGTH OF STAY (DAYS)	NUMBER	PERCENTAGE
0	35	0.16
1	7876	35.38
2	3515	15.79
3	1892	8.50
4	1393	6.26
5	900	4.04
6	697	3.13
7	540	2.43
8-30	2386	10.72
>30	209	0.94
*BLANK	2780	12.49
*N/A	41	0.18
TOTAL	22264	100.00

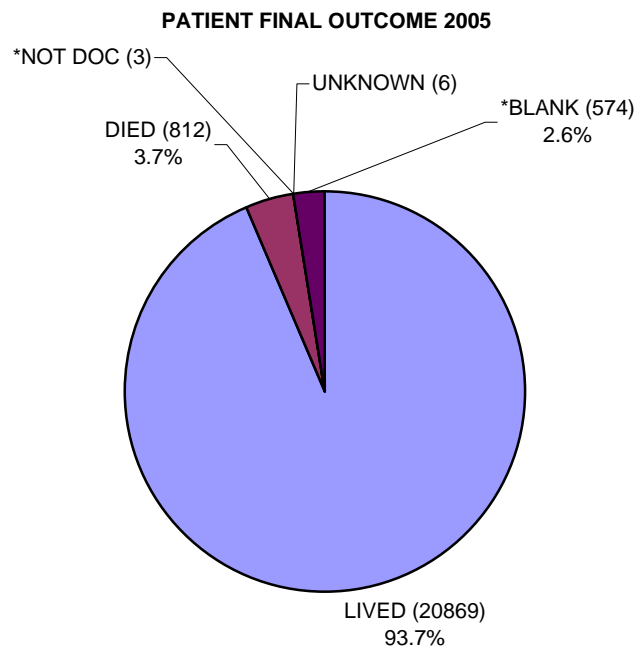
*Note: Hospital length of stay is calculated from Admit Date to Hospital Discharge Date.

TOTAL DAYS IN ICU 2005



TOTAL DAYS IN ICU	NUMBER	PERCENTAGE
0	5186	23.29
1	1907	8.57
2	1119	5.03
3	599	2.69
4	313	1.41
5	215	0.97
6	160	0.72
7	110	0.49
8-30	800	3.59
>30	63	0.28
*BLANK	8682	39.00
*N/D	397	1.78
*N/A	2713	12.19
TOTAL	22264	100.00

PATIENT FINAL OUTCOME 2005

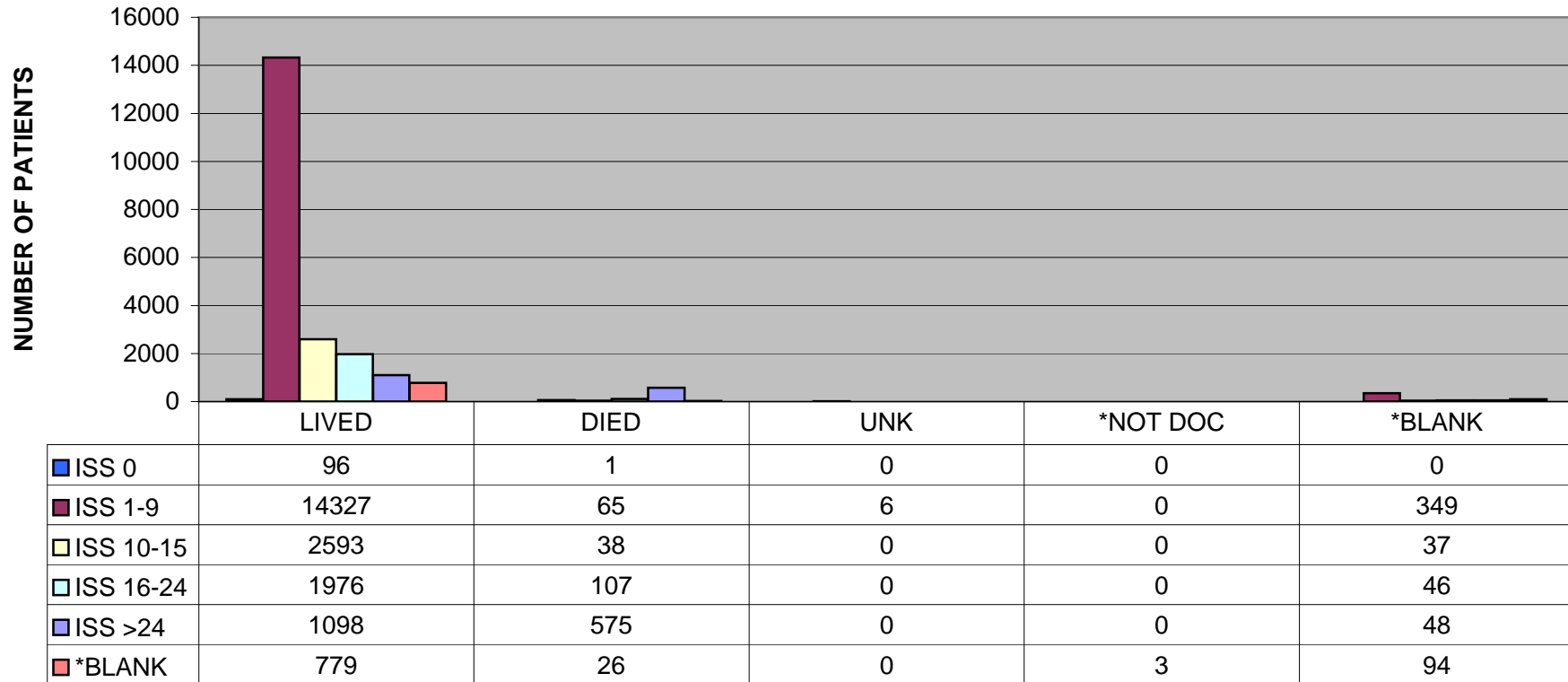


OUTCOME	NUMBER	PERCENT
LIVED	20869	93.73
DIED	812	3.65
UNKNOWN	6	0.03
*NOT DOC	3	0.01
*BLANK	574	2.58
TOTAL	22264	100.00

Note: *NOT DOC means Not Documented

INJURY SEVERITY SCORE BY PATIENT OUTCOME SUMMARY 2005

ISS BY PATIENT OUTCOME SUMMARY 2005

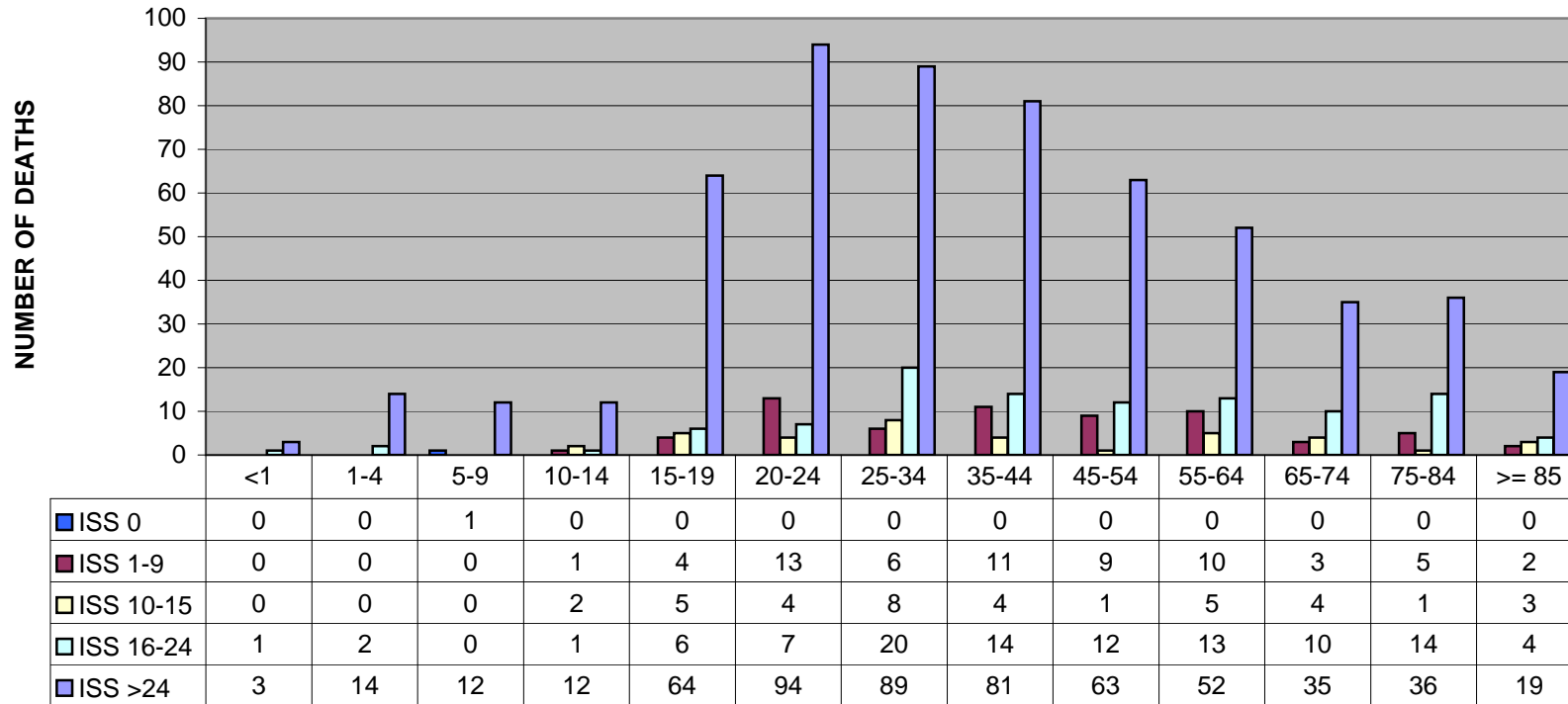


ISS	LIVED	DIED	UNK	*NOT DOC	*BLANK	TOTAL
ISS 0	96	1	0	0	0	97
ISS 1-9	14327	65	6	0	349	14747
ISS 10-15	2593	38	0	0	37	2668
ISS 16-24	1976	107	0	0	46	2129
ISS >24	1098	575	0	0	48	1721
*BLANK	779	26	0	3	94	902
TOTAL	20869	812	6	3	574	22264

Note: *NOT DOC means Not Documented.

DEATHS BY INJURY SEVERITY SCORE AND AGE 2005

DEATHS BY ISS SCORE AND AGE 2005



AGE	ISS 0	ISS 1-9	ISS 10-15	ISS 16-24	ISS >24	TOTAL
<1	0	0	0	1	3	4
1-4	0	0	0	2	14	16
5-9	1	0	0	0	12	13
10-14	0	1	2	1	12	16
15-19	0	4	5	6	64	79
20-24	0	13	4	7	94	118
25-34	0	6	8	20	89	123
35-44	0	11	4	14	81	110
45-54	0	9	1	12	63	85
55-64	0	10	5	13	52	80
65-74	0	3	4	10	35	52
75-84	0	5	1	14	36	56
>= 85	0	2	3	4	19	28
TOTAL	1	64	37	104	574	780*

***Note: Patient count = 812 (deaths). Patients processed = 780. 32 patients not included due to missing entries for ISS or Age.**